Recruitment and Retention in British Army Reserve Logistics Units

The British Army is currently in a period of the most significant organisational transformation since the abolition of conscription in 1957. Driven by financial, and to a lesser-extent, strategic imperatives, how the army perceives its future missions and how it organisationally orientates itself toward fulfilling them is changing. There are many facets to these ongoing reforms – known as Army 2020 – the most profound of which is the reduction in regular army manpower from 102,000 in 2010 to 82,000 by 2020 (MoD, 2012). A large proportion of these cuts to the regular army have been focused on Combat Service Support (CSS, or logistics) personnel. Such a reduction in personnel has resulted in changes to the structure and readiness of the army, and in particular, a renewed emphasis on the integration of the Army Reserve (AR); the rebranded Territorial Army (TA). As part of the Army 2020 reforms, the AR has been put on a tiered and rotational readiness system similar to that used by the US Army.

To deliver the greater capability required of the AR under Army 2020, the Ministry of Defence's (MoD) Consultation Paper, *Future Reserves 2020: Delivering the Nation's Security Together* (FR20), outlined significant changes to the role and size of the AR. While previous research has discussed how the TA has been utilised to date (Dandeker et al., 2009), FR20 marked a major change to the AR's role within British defence, changing it from a strategic to an operational reserve force. It will now be required to deploy routinely on operations and defence engagement tasks with and without the regulars. Perhaps most importantly, FR20 seeks to offset the reduction in regular personnel with a more deployable force of 30,000 army reservists. This requires the recruitment of over 10,000 new AR soldiers by 2019. It has also pledged to spend £1.8 billion between 2013-23 on pay, recruitment, equipment, and better training and support for reservists in a bid to both attract new recruits, retain existing soldiers, and thereby raise the capability of the reserves to meet the new deployment demands (MoD, 2013). However, the drive to recruit has proved problematic, despite the FR20's initial introduction of increased remuneration and welfare

packages (‘Army reservists to get military pensions and healthcare benefits’, *The Guardian*, 3 July 2013). With the public proving resistant to joining in numbers required, more recently numerous joining bonuses for new reservists of £2,300, and other bonuses for ex-regulars joining the reserves of up to £10,000, have been introduced (‘£10,000 for troops to join reserves’, *The Daily Mail*, 3 April 2014). The failure to recruit in the numbers required, and then need to the increase the reservist ‘offer’, raised questions about the overall efficiency of a greater reliance on the reserve. While the new measures have increased inflow, interviews with reservists have revealed that these bonuses have caused concerns about the commitment of those joining the reserve under these enhanced terms. (Group and individual interviews; 13 June and 11 July 2015.) Thus, the better pecuniary benefits on offer raise the question whether the AR is recruiting the personnel with the right kind of commitment to meet its increased readiness burden. In short, is recruiting occupationally-oriented soldiers organisationally effective for the AT?

Within this context, personal communication with senior army officers has indicated that due to the cuts in regular CSS capability, one of the greatest risks to successfully implementing FR20 lies with the reserve logistics component, and within this group, specifically in Royal Electrical and Mechanical Engineers (REME) and Royal Logistics Corps (RLC) units (senior army officer, personal communication, 16 January 2014). The regular RLC lost two regiments as result of Army 2020, while the REME lost one battalion (BBC, 2012). The regular army is thus increasingly dependent on reserve RLC/REME units to provide outsourced logistics capability. These units need to be fully manned and will deploy more frequently to deliver such capability. Reserve RLC and REME recruitment and retention is therefore central to the success of FR20, and by extension, Army 2020. To examine these areas of policy interest, this study uses the institutional-occupational (I-O) model to generate survey data on why these reservists join and remain in their units. Were possible data has been corroborated by individual and group interviews. This also allows the question of commitment to reserve service to be addressed. It also contributes original data

on attitudes towards recruitment, reasons for deploying, and retention in the AR in general. In doing so, it addresses issues central to current British defence policy, and those concerning the I-O model.

Institutional - Occupational Motivations for Military Service

In 1977, Charles Moskos first put forward his theory that individual soldiers joined the professional US military for two reasons: institutional and occupational. While initially Moskos viewed these motivation orientations as mutually exclusive, he later accepted that both could influence reasons for joining, with one usually more ascendant than the other (Moskos, 1977; 1988). For Moskos, institutional motivational orientations include often intrinsic personal reasons for joining the military to experience military life, be challenged, or to serve one's country. These intrinsic motivations are sustained by organisational norms and practises within the military that foster a sense of personal loyalty and duty toward military service. Moskos proposed that soldiers who join for institutional reasons overcome adversities associated with military service, such as long work hours or deployments, through high levels of personal commitment to the military institution. He argued that these institutional motivations had been predominant until the professionalisation of the US military in the 1970s. Conversely, Moskos argued that occupational orientations for joining the military are similar to those one would expect to find in civilian employment, and these have become more apparent with the professionalisation of Western militaries (King, 2013). He argued that an occupational orientation views military service as clearly defined work and tasks, and expects that any adverse impacts of service are expected to be compensated for by material or other benefits. Moskos' institutional-occupational (I-O) framework for joining and remaining in military service has been found to be useful in explaining recruitment and retention in the US (Moore, 2002) and other militaries (Cotton, 1981). In particular, using factor analyses Eighmey (2006) and Woodruff, Kelty, & Segal (2006) found that I-O motivations helped explain variance in responses amongst US youth and regular combat

soldiers. It has also been compliment by organisational commitment research (Meyer and Allen, 1991)

The I-O Model and Reserve Recruitment and Retention

In a paper published in this journal Griffith (2007) applied Moskos' I-O framework to examine reserve soldiers in a US Army National Guard division, which included logistics personnel. Griffith found that four underlying factors explained these soldiers' motivations for joining: *wanting to experience military life*; *wanting material benefits*; *wanting occupational development* and *wanting future opportunities*. These factors were similar to Woodruff et al.'s (2006), and Griffith found that a greater percentage of his sample joined to experience military life compared to other reasons. He found that joining motivations 'accounted for significant and relatively large amounts of variance in career intentions in Guard soldiers' (R^2 change = 12 percent) (Griffith, 2007 p. 249). Griffith also examined the relationship between reasons for joining and leaving the Guard, finding that soldiers' reasons for leaving were broadly consistent with the I-O framework. Overall, Griffith argued that the I-O model helped explain recruitment and retention motivations in the National Guard. Decisively, he concluded that institutional joining motivations were correlated with soldiers who were more committed to reserve service and that this benefited recruitment and retention and deployability. As a result, he argued that emphasising institutional elements in recruitment campaigns may prove more cost effective in the long term (p. 253). Griffith's findings were broadly supported by subsequent longitudinal research on Army National Guard soldiers (Griffith, 2008 p.227-236).

In the British context, reserve recruitment and retention is particularly worthy of examination at present as there have been major challenges to increasing the trained strength of the AR. At the beginning of the implementation of FR20 in 2013 the trained strength of the AR was 19,410 (MoD, 2014b). While the latest figures show it was 21,030 by early 2015 (MoD, 2015b), the majority of this figure has been increased by the 2015 inclusion of certain groups that were excluded in 2013 (MoD, 2015b p. 7). Indeed in 2014,

with these groups excluded, the trained strength had actually declined to 19,400 (MoD, 2014b), indicating high rates of outflow. At that rate, an extra 2,750 trained reservists a year are needed to hit the target of 30,000 by the end of 2018 (Neville, 2014). While there is evidence that recruitment is increasing, the recent claims of the Minister for Reserve Forces that 'current strengths are running ahead of schedule' is questionable (Hansard, 2015). Indeed, at present, it appears that this target will not be met on time. This is despite having spent £50 million outsourcing recruitment to a specialist firm (Colville, 2014), as well as spending millions on intensive television and press recruitment campaigns (Drury, 2014). The introduction of new IT systems have also caused both regular and reserve recruitment to suffer (Government, 2014, 10). Furthermore, numerous reserve recruitment and retention bonuses have been introduced, including a £10,000 bonus for ex-regulars who join the reserves (MoD, 2015a), while the entry requirements have also been changed to attract more recruits (Johnson, 2014). Clearly then, FR20 has proved a challenge in terms of recruitment and retention.

As a result of this challenge, and of the outsourcing of logistics capability to the reserves, recruitment and retention in the AR REME and RLC provides a useful case study for examining key questions relating to the FR20 policy. In particular, how are reasons for joining related to recruitment strategies? Moreover, as recent recruitment campaigns have emphasise occupational benefits over institutional motivations, will they attract the right kind of recruit? And how are such strategies related to outcomes of interest, such as manning a more ready and deployable force, and the long-term retention of reservists? This study seeks to address these questions.

A search of databases of academic literature revealed only one recent publication directly concerning recruitment in the British Army (Dandeker & Strachan, 1993). Moreover, a review of the literature revealed a lack of recent, sociological research on the TA (Beckett, 1982, 2008; Cunningham, 1975; Mitchinson, 2005, 2008, 2014; Walker, 1990) Similarly, the MoD's annual Reserve Forces Continuous Attitudes Survey (ResCAS) only began collecting

data on soldiers' reasons for leaving and joining in 2015, and while there are presently some army-led, and other MoD-approved research projects looking at reserve recruitment, these do not focus on the logistics component specifically, and are in their early stages.[1] The exception is Dandeker et al.'s (2009) small scale study of soldiers' reasons for leaving the TA after service in Iraq between 2003-6. Given this lack of published research on the AR, this study follows Moskos' I-O framework, and the methodological approach used by Griffith (2007).

Study Aims and Hypotheses

The study was instigated by the one-star Capabilities Director, CSS (CD CSS), in order to better understand recruitment, retention, and readiness issues in AR RLC and REME units. This is important because these units are required be fully manned and more deployable under FR20. The intent was to produce statistically significant findings reflective of the wider AR RLC/ REME population that could be used to inform policy as attempts are made to grow this component to meet the requirements laid out in FR20. Following previous research on the US National Guard, but addressing major gaps in the literature on the British reserves, statistical analysis utilising the I-O is used to examine these questions. As such, the study set out to achieve the following two aims:

a. Apply the institutional-occupational model to reasons for joining; reasons for reporting when mobilised; career intentions and reasons for leaving amongst reserve RLC and REME personnel in order to better understand the implications for their recruitment, retention and readiness as a result of FR20.
b. Use the sample to contribute to better understanding of the I-O model.

Hypothesis 1: Institutionally-motivated REME/RLC soldiers – contrasted with occupationally-oriented soldiers – will show greater commitment to military service.

[1] As well as the introduction of the ResCAS survey in 2014, the army is also collecting data on the success of its Army Reserve recruitment drive, known as *Operation Fortify*. For details on the four studies of reserve service, see http://www.future-reserves-research.ac.uk

Sub-hypotheses:

1a: Institutionally-oriented soldiers will mobilise out of a sense of duty rather than contractual obligation.

1b: Institutionally-oriented soldiers will intend to remain in service longer.

1c: Institutionally-oriented soldiers will be more satisfied with reserve service overall.

Hypothesis 2: Contrasting institutionally-oriented soldiers, those with occupational orientations are more likely to leave the reserves.

Sample Description

Those surveyed were reserve RLC and REME personnel, including a small number of attached Adjutant General's Corps (AGC) personnel. Members of 8 reserve RLC regiments and 6 REME battalions were approached. To ensure a varied sample these were chosen for their geographic spread across the UK, but other than this selection was random. Approximately 2,000 personnel (from a total population of 4,600) were approached to participate, and there were 179 valid electronic responses and 405 valid paper responses, totalling 584 responses. The approximate response rate was 29 percent, which is consistent with the latest ResCAS survey (31 percent, MoD, 2015). The confidence level was 95 percent, with a confidence interval of 3.79. RLC personnel represented 73.2 percent of responses and REME 23.6. This is representative of the reserve RLC/REME population. With missing data excluded pairwise, a chi square test for goodness-of-fit confirmed this ($1, n = 545) = .1, p = .75$. The unit with the highest number of responses contributed to 20 percent of total responses, while the lowest contributed 0.2 percent. The average contribution per unit was 7.2 percent. Varied responses rates reflect different emphasises placed by unit commanders on participation, and also the training schedule of units. Varied unit response rates, and in particular the 20 percent contribution, may have skewed data, but the relatively strong total response rate mitigated this somewhat. Although the relatively small sample size was potentially problematic for future factor analysis, it should be

emphasised that the main research aims were to apply the I-O model to data representative from the AR RLC/REME population.

Table 1

Background Characteristics Comparison with Army Reserve Population

Background Characteristic	Sample	Total Volunteer Reserve, including Army Reserve Gp A
Gender		
Male	87.5 %	86.9 %
Female	12.5 %	13.1 %
Age Gp		
18-24	15.9 %	15.3 %
25-34	27.1 %	29.8 %
35-44	28.0 %	26.3 %
45-54	26.7 %	24.2 %
55-64	2.3 %	4.2 %
Rank		
Officers	7.1 %	18.7 %
Other Ranks	92.9 %	81.3 %

Source: MoD Statistics, Reserves and Cadets: 1 April 2014

Generally, the distributions of age and gender in the sample were similar to figures available for the AR (MoD, 2014). The rank most represented was Private Soldier, with 40 percent of responses. This was representative of the wider reserve RLC/REME population and important as a high number of junior soldiers' responses are crucial to understanding recruitment and retention in the wake of FR20.

Method: Survey Design and Administration

The questionnaire consisted of 30 questions with a total of 96 items. Relevant questions were taken directly from Griffith (2007), with some minor adjustments made to his questionnaire due to differences between National Guard and British Army Reserve terms of service. Firstly, a list of reasons for joining and leaving reserve service were presented in which soldiers indicated 'yes' or 'no' to each reason, coded 1 or 0.[2] Participants were then asked questions about their career intentions. Possible answers were on a five-point Likert

[2] This use of a dichotomous variable followed Griffith, but a Likert scale could be reconsidered in future studies.

scale ranging from 1= ‘Very dissatisfied/Strongly disagree’; 2 = ‘Dissatisfied/Disagree’; 3 = ‘Neutral’; 4 = ‘Satisfied/Agree’; and 5 = ‘Very satisfied/Strongly agree’.

Analytic Approach

The purpose of the study was to address the two research aims and to test the specific hypotheses stated earlier. To do this, several separate multiple regression analyses corresponding to each outcome variable were conducted. Multiple regressions asses the relationship between the each predictor variable and the outcome variable, whilst controlling for all other predictor variables entered into the model. Outcome, or dependent variables included career intentions and reasons for leaving (retention), and reasons for reporting when mobilised (readiness). Each outcome variable was operationally defined as responses to one or more survey items, as discussed below. Predictor, or independent variables included soldier background characteristics, which served as control variables. Other predictor variables were derived from factor analyses of reasons for joining. Table 1 displays each of the predictor and outcome variables, along with their corresponding operational definitions and separate factor analysis scores.

Predictor Variables

Soldier Background: Categories and coding for soldiers’ background characteristics closely followed Griffith (2007, p. 238) and served as control variables in the multiple regression analyses. To understand whether particular groups of soldiers’ joined reserve service for specific reasons, linear regression analyses were then conducted in which the factor scales for the four joining motivations were regressed onto gender, age, education status, marital status (single or other), rank, year last mobilised, frequency of attending training and being in the RLC/REME (cap badge).

Reasons for Joining: Reasons for joining reserve service were taken directly from Griffith (2007). These broadly follow Moskos’ I-O model. One item was added – ‘to deploy on operations’. Of the 14 reasons, soldiers responded ‘yes/no’ to each reason, with ‘yes’ coded

as 1 and ‘no’ as 0. These responses were later factor analysed to derive the underlying relationships between them and to create summary constructs.

The first research question was to examine whether Moskos’, Woodruff et al.’s and Griffith’s enlistment I-O motivations could be observed in British AR RLC and REME soldiers. To examine this, these soldiers’ responses to reasons for joining the AR underwent EFA.[i] With an eigenvalue set at 1, three major factors emerged, contributing 31.8 and 13.4 and 7.9 percent of total variance, respectively. An inspection of the screeplot revealed a break after the fourth factor, and using Catell’s Scree Test, it was decided to retain four factors for further examination. The last factor had an eigenvalue of .984, and contributed 7.6 percent of variance. In total, 60.7 percent of variance was explained. These four factors labelled were *institutional – wanting to experience military life; institutional – serve country and other*; *occupational – pecuniary*; and *occupational – development*. An average percentage of soldiers who agreed with items on each factor was then calculated. Next, the arrangement of items on the factors implied by the EFA underwent confirmatory factor analysis using Amos 22 software. Table 2 below indicates the regressions of the questionnaire items onto the latent constructs. While the items on the institutional factors were similar to those described as ‘wanting military life’ by Griffith, conversely, two factors of institutional motivations for joining reserve service were identified. The CFA confirmed the statistical significance of the four factor model.[ii] The summary joining motivations were then used in subsequent analyses as factor scores.

Outcome Variables

The study employed several outcomes of policy interest, including RLC/REME soldiers’ reasons for joining the AR; career intentions and reasons for leaving; and reasons for deploying when mobilised.

Career intentions: To determine how long soldiers intended to stay in the reserve they were asked two questions. Firstly, to establish the relationship between time in service and career

intentions, soldiers were asked to choose the category closest to how long they had served. Categories included: 0-11 months, 1-3 years, 4-6 years, 7-9 years, 10-12 years,13-15 years, 16-18 years, 19-21 years and 21 years or more. These were then grouped into the lowest and highest categories to better inform policy. 47.3 percent of the RLC fell into the 0-6 years category, indicating a young population, but only 30.3 percent of REME respondents were in the same category. Meanwhile, 27.5 percent of the RLC were in the 16-21 years or more category, while 46.3 percent of REME soldiers were in this category. Respondents were also asked how long they intended to stay in the reserves. The categories were: Not sure (coded as missing), less than 1 year (1) 1-2 years (2), 3-4 years (3), 5-6 years (4), 7 years or more (5). The majority of soldiers (46.7 percent) intended to serve for seven years or more, with 21 percent undecided as to how long they would serve.

Table 2: Predictor and Outcome Variables

Construct	Measure	Specific Items	Respective Rotated Component Factor Analyses Scores
Predictor Variables			
Latent Construct: **Institutional orientation**	Scales derived from factor analysis of reasons for joining:	Responded yes-no to:	
	Wanting to experience military life	Experience military training	.82
		Experience military life	.79
		Learn skills different to civilian job	.71
		Develop discipline and confidence	.51
	Serve country and other	Serve country	.73
		Have friends in the military	.62
		Be physically and mentally challenged	.61
		Be recognised and promoted	.60
		Experience overseas training and travel opportunities	.51
Latent Construct: **Occupational orientation**	Scales derived from factor analysis of reasons for joining:		
	Occupational – pecuniary	Earn money	.90
		Receive bonus money	.88
	Occupational – development	Obtain educational benefits	.79
		Develop civilian job skills	.80
Soldier background	Gender Age Single Education attained Rank Year last mobilised RLC/REME/AGC	Responses to individual questions	
Outcome Variables			
Career intentions	Self-reported intention as to length of service	Responded: Not sure, 1-2 years, 3-4 years, 5-6 years, 7 years or more	
Reasons for leaving	Scales derived from factor analysis for reasons for leaving:	Responded yes-no to:	
	Poor leadership and boring	Leaders don't look out for soldiers	.75

	training	Leaders lack military skills	.74
		Boring training	.72
		Too much time waiting around	.63
		Working on unnecessary things	.70
		Lack of promotion	.45
	Occupational – pecuniary	Lack of pay	.79
		Bounty pay not enough	.80
		Pay problems	.71
	Occupational – development	Unable to acquire civilian job skills	.75
		Not enough educational benefits	.73
		Few overseas travel and training opportunities	.51
		Not enough physical and mental challenges	.51
	Lack of deployments and opportunities to work with regulars	Not enough deployments	.86
		Not enough training with regulars	.82
	Too many deployments	Possibility of being deployed	.87
		Lengthy periods of being deployed	.83
	Conflicts between reserve service and civilian life	Conflicts between reserve service and civilian job	.82
		Conflicts between reserve service and family life	.82
Reasons for reporting	Self-reported agreement with reasons when asked: '*When and if you are called to mobilise and deploy to support operations, you would go because*…?'	Responded in 5 point agreement to: Because your enlistment contract requires it So that you do not receive disciplinary action Not to let your family down Because you want to do your job on operations To serve your country Because you need the money To do your job on operations	

Reasons for Leaving: Another set of outcomes related to soldiers' self-reported reasons for leaving the AR. Soldiers were asked whether nineteen potential conditions would cause them to leave and their responses reasons then underwent EFA to identify underlying themes in order to relate these to the I-O model.[iii] Six factors emerged which accounted for 25.7, 9.7, 8.4, 7.0, 5.8, and 5.6 percent of total variance, respectively and 62.2 percent in total. The factors were 'Poor leadership and boring training'; 'Occupational – pecuniary'; 'Occupational – development'; 'Lack of deployments and opportunities to work with regulars'; 'Too many deployments'; and 'Conflicts between reserve service and civilian life'. Their respective items and loadings are detailed in Table 2 above. In order to examine the predictive ability of I-O joining motivations on intentions to remain in service and these reasons for leaving reserve service, separate multiple regression analyses, each

corresponding to one of these outcomes, were conducted. Predictor variables were soldier background characteristics and the four I-O joining motivations.

Reasons for Reporting when Mobilised: The AR will be more deployable under Army 2020, and to investigate the implications of potentially increased deployment demands on reservists, soldiers were asked about their reasons for reporting when mobilised. Soldiers were asked 'When and if you are called to mobilise and deploy to support operations, you would go because…' Soldiers then indicated the strength of agreement with several reasons on a 5-point Likert scale. These included: 'Because your enlistment contract requires it'; 'so that you do not receive disciplinary action'; 'not to let your family down'; 'because you want to do your job on operations'; 'to serve your country;' and 'because you need the money.'[iv]

Results

Underlying Reasons for Joining Reserve Service

Table 3 presents the basic percentage of respondents that agreed that each reason had influenced their decision to join the reserves. When combined, a greater percentage joined to *experience military life* (76.2 percent) and *serve country/other* (75.5 percent) than for *occupational – pecuniary* (62.7 percent) and *occupational – development* (50.5 percent) reasons. This is a useful baseline statistic in terms of understanding why RLC/REME soldiers join the reserves. It indicates that a higher percentage of soldiers listed institutional reasons over occupational reasons as motivating them to join the reserves. Of note is the 16 percent difference between the most frequently listed institutional reason (to be physically and mentally challenged) and the highest occupational reason (earn money). In considering the rest of the percentages, there are higher scores throughout the institutional factors; indeed earning money only had a higher percentage than the two lowest scoring institutional factors. There is therefore a clear trend that soldiers more frequently cite institutional over occupational factors in their decision to join, and that being challenged and serving one's country are the two most frequently reported reasons for joining the reserves. This has

potentially significant implications for the FR20 recruitment model, which has stressed the occupational benefits of reserve service.

Table 3: Basic Reasons for Joining

Measure	Specific Items	Percentage responded 'yes'
	Responded yes-no to:	
Wanting to experience military life	Experience military training	81
	Experience military life	77.1
	Learn skills different to civilian job	74.1
	Develop discipline and confidence	72.6
Serve country and other	Serve country	85.1
	Have friends in the military	61.5
	Be physically and mentally challenged	85.5
	Be recognised and promoted	66.4
	Experience overseas training and travel opportunities	78.9
Occupational – pecuniary	Earn money	62.7
	Receive bonus money	56.3
Occupational – development	Obtain educational benefits	43.2
	Develop civilian job skills	57.7

Soldier Background and Joining Motivations

The results of the soldier background and joining motivations regressions are detailed in Table 4. Taking into account differences in measurement and responses, the overall R2 of the four joining motivations was roughly .25. These indicated that lower-ranked soldiers are more associated with joining for *institutional – to experience military life* reasons (-.16, $p < .001$). This is a relatively strong relationship that is very highly significant to the wider population. Soldiers who attended training more frequently were also relatively strongly associated with having joined for this reason also, at highly significant levels (.18. $p < .01$). Being less educated was the only background characteristic statistically associated with *institutional – serve country/other* reasons for joining at significant levels (-.10, $p < .05$). Soldiers who had deployed less recently, or not at all, were very slightly associated with *occupational – pecuniary reasons* for joining at highly significant levels (-0.03, $p < .01$). As expected, soldiers with less education were associated with joining for *occupational –*

development reasons at very significant levels, as were lower ranks (-.08, p < .01; -.08, p < .01, respectively). Soldiers who had been less deployed were also slightly associated with joining for occupational development reasons at significant levels (-.02, p < .05).

Table 4: Regression Analyses in which Soldier Background Predicts Reasons for Joining

Predictor Variables	Institutional – Experience Military Life	Institutional – Serve Country/ Other	Occupational – Pecuniary	Occupational – Development
		Unstnd coeff B		
Male	-.26	-.12	.03	-.03
Age	.12	-.03	-.10	-.01
Single	.27	.19	-.06	.15
Education	-.04	-.10*	-.02	-.08**
Rank	-.16***	-.06	.02	-.08**
Year mobilised	-.01	-.02	-.03**	-.02*
Freq training	.18**	.11	.14	.02
RLC	.23	-.08	.07	.07
REME	-.19	-.15	-.06	.17
AGC correlated	0	-.03	-.07	-.20
R^2	.09	.04	.04	.08
F, df	9, 464	9, 464	9, 464	9, 464
=	5.24***	1.99*	2.12*	4.41***

*p < .05, two tailed; **p < .01, two tailed; ***p < .001, two tailed

In terms of informing recruitment and retention policy, these findings suggest that there is no statistically significant difference between reasons for joining the reserve between RLC/REME/AGC soldiers. The relationship between lower ranks and those attending training more frequently with joining to experience military life indicates that recruitment campaigns that emphasise the institutional experiential benefits of military service will likely resonate with reserve logistics recruits, whilst also indicating that soldiers who join for this reason are more committed to training. This is an important statistic as it may indicate that intrinsic institutional reasons for joining produce more committed reserve logistics soldiers; it is also consistent with the previous literature. Appeals to patriotism are also likely to be particularly effective with less-educated potential reserve logisticians. In terms of occupational motivations for joining, less educated soldiers are also more likely to be motivated by campaigns that stress the educational and career development opportunities

associated with reserve service, as are lower ranked soldiers. Although very weak, a significant relationship does exist between reserve logistics soldiers that join for monetary benefits and a lack of deployment. This is unsurprising and supports hypotheses 1.

Career Intentions and Reasons for Leaving Reserve Service

The results in Table 5 below indicate the relationship between the I-O predictor variables and the career intention outcomes. Taking into account differences in measurement and responses, the overall R2 of the six reasons for leaving was roughly .39. REME soldiers were strongly associated at significant levels with intending to stay in the reserves longer (.50, $p < .05$). Soldiers who attended training more frequently were associated at very high levels of significance with remaining in the reserves for longer (.23, $p < .001$). These are to be expected. However, further supporting sub-hypothesis 1b, soldiers who joined to serve their country/other were relatively strongly associated (.24, $p < .01$) with intending to remain in service longer at high levels of significance. Joining for occupational - development reasons had a smaller but significant relationship with career intentions (.16, $p <.05$).

Table 5: Regression Analyses in which Soldier Background and Enlistment Motivations Predict Career Intentions and Reasons for Leaving Reserve Service

Predictor Variables	How Long Stay in Reserves	Leave Boring Trg/Leader	Leave Lack Pec	Leave Lack Occ Dev	Leave Lack Deploy	Too Many Deploy	Conflict with Civ Life
				UnStnd coeff B			
Male	-.13	.21	.16	.21	.12	-.07	.10
Age	-.04	0	.03	.02	-.05	.08*	.05
Single	.05	-.24	-.08	.08	-.03	-.01	-.20*
Education	-.06	.15*	0	.16***	.03	-.01	.08**
Rank	.06	-.03	-.03	.01	-.07*	-.03*	.01
Year mobilised	.02	.06**	.01	.02	.03***	-.01	.01
Freq training	.23***	-.35**	-.12*	-.22**	-.05	-.02	-.12*
RLC	.75	-.06	.12	.11	-.13	.10	.23
REME	.50*	.27	.08	.04	-.07	.07	.14
R^2	.06	.06	.02	.06	.07	.03	.06
F, df	9, 351	9, 464	9, 464	9, 453	9, 461	9, 464	9, 464
=	2.60**	3.07**	1.01	3.38***	3.62***	1.30	3.33**
Inst - Exp mil life	.03	.02	-.10*	-.01	-.02	.08	0

Inst - serve/other	.23**	.03	-.01	-03	.04	-.09	-.04
Occ - pecuniary	-.01	.11	.25***	.05	-.04	.06	.02
Occ - development	.16*	-.24*	.06	-.01	-.10*	-.05	.01
R^2	.03	.01	.05	0	.01	.01	0
F, df =	4, 402	4, 528	4, 531	4, 517	4, 526	4, 527	4,529
	2.17	1.10	7.38***	.32	1.76	1.32	.50
Total R^2	.09	.08	.07	.07	.07	.03	.07
F,df =	13, 402	13, 464	13, 464	13, 453	13, 461	13, 464	13, 464
	2.39**	2.09***	4.20***	1.85***	2.69***	1.31	1.91***

*p < .05, two tailed; **p < .01, two tailed; ***p < .001, two tailed

In terms of reasons for leaving, background characteristics explained more variance than reasons for joining. At significant levels, those who had joined for occupational development reasons were less likely to leave due to boring training. Understandably, more educated soldiers were more likely to leave for this reason (.15, p < .05), as were soldiers more recently deployed. As expected, soldiers who joined to experience military life were less likely to leave due to a lack of pecuniary benefits (-.10, p < .05). Similarly, soldiers who joined for pecuniary reasons were associated at very high levels of significance with leaving due to a lack of pecuniary compensation (.25, p <.001). Both statistics support hypothesis 2. Soldiers who joined for occupational development reasons were also associated with leaving due to a lack of deployments. At much lower levels of significance but supporting hypothesis 1, soldiers that joined for both of the institutional reasons were less likely to leave due to conflict with civilian life and a lack of pecuniary compensation.

Further regressions examined the impact of I-O motivations on soldiers' satisfaction with reserve service. Supporting hypothesis 1c, joining to serve one's country/other was relatively strongly associated with being more satisfied with equipment at significant levels (.22, p < .05), while joining to experience military life was also relatively strongly associated with higher satisfaction with pecuniary benefits at significant levels (.30, p < .05). When lower levels of significance were examined, a trend was discernible, with soldiers who join for both institutional reasons consistently more satisfied than those who join for pecuniary

reasons, across these measures of satisfaction. Crucially, this may indicate that soldiers who join for institutional reasons are easier to retain, and supports sub-hypothesis 1b.

Reasons for Mobilising

Finally, in order to better understand soldiers' reasons for reporting when mobilised, a series of multiple linear regressions were conducted using reasons for joining as predictor variables, and the self-reported reasons for mobilising as outcome variables. Inter-item correlations between responses to mobilising for contractual and disciplinary reasons were significantly correlated (.30, p <.01). Supporting hypothesis 1 and 2, responses to these two items were negatively correlated with deploying to serve country or wanting to do job on operations (-.14, p <.01, to -.57). Deploying to avoid disciplinary action was also significantly correlated with deploying due to needing the money (.35, p <.01). As expected, mobilising to do job on operations and serve country were also positively correlated (.44, p <.01).

Table 6: Regression Analyses in which Soldier Background and Enlistment Motivations Predict Reasons for Reporting when Mobilised

Predictor Variables	Contract Requires	Avoid Disciplinary Action	Not Let Family Down	Do Job on Ops	Serve Country	Need the Money
			UnStnd coeff B			
Male	.03	-.04	.32	.15	.07	.01
Age	-.02	-.17*	-.09	.04	.05	-.22**
Single	.10	-.04	.09	.23*	-.01	.06
Education	.04	.01	.03	.01	0	-.07
Rank	-.01	-.01	-.01	-.01	-.03	-.06
Year mobilised	-.01	-.03*	-.02	.02**	0	.01
Freq training	-.04	-.06	-.07*	-.02	.04	-.07
RLC	-.10	.09	.16	-.12	0	.25
REME	.05	-.16	-.02	-.09	-.06	.19
AGC correlated	0	-.03	-.07	-.20	0	-.06
R^2	.01	.06	.04	.03	.01	.09
F, df	9,464	9, 464	9, 464	9,464	9, 464	9, 464
=	.45	3.03**	1.89*	1.75***	.32	5.07***
Inst - Exp mil life	.09	-.03	0	.02	-.04	-.03
Inst - serve/other	-.07	0	.03	.08*	.22***	-.06
Occ -pecuniary	.11	.22***	.17**	-.08	-.10*	.48
Occ - development	.01	.17*	.10	-.01	-.08	-.05
R^2	.01	.05	.03	0	.08	.04

F, df =	4, 547	4, 539	4, 541	4, 550	4, 551	4, 543
	.92	6.34	4.02**	3.78**	12.58***	17.34***
Total R^2	.02	.09	.07	.03	.08	.13
F,df =	13, 464	13, 464	13, 464	13, 464	13, 464	13, 464
	.94	4.69***	2.96**	2.77***	6.45***	11.21***

*p < .05, two tailed; **p < .01, two tailed; ***p < .001, two tailed

The results are displayed in Table 6. Taking into account differences in measurement and responses, the overall R2 of the six reasons for reporting was roughly .42. In terms of underlying reasons for joining, and consistent with hypothesis 2, soldiers who joined for *occupational – pecuniary reasons*, and *occupational – development reasons*, were associated with reporting to avoid disciplinary action at very highly significant (.22, p < .001) and highly significant levels (.23, p < .01), respectively. Similarly, joining for pecuniary benefits was also negatively associated with mobilising to serve one's country at significant levels (-.10, p < .05). Conversely, supporting hypothesis 1a, soldiers who joined for *institutional reasons – to serve country/other*, were associated with reporting for this reason at very high levels of significance (.22, p < .001). This evidence is consistent with Woodruff et al. (2006) and Griffith (2007, p. 251), and suggests that institutionally motivated soldiers are more likely to deploy for intrinsic reasons rather than for extrinsic reasons, such as contractual requirements, avoiding disciplinary action, and needing the money. Given that FR20 envisages a more deployable reserve, institutionally motivated reservists may therefore be potentially more reliable. Following Griffith (2008), it can also be posited that these soldiers are likely to perform more consistently on operations, due to the presence of these intrinsic motivations during periods of adversity.

The I-O Model

The second research aim was to use the sample to contribute to better understanding of the I-O model. Overall, the statistical significance of the model was very similar to that of Griffith's. However, the presence of two institutional factors is interesting as this differs from Woodruff et al.'s and Griffith's identification of a single institutional factor. This indicates that

in the case of British AR RLC and REME soldiers, there are two major institutional motivations for joining: *experiencing military life*, and *serving one's country/other*. Some items (obtain educational benefits, overseas training and travel opportunities and be recognised and promoted) clearly loaded on different latent constructs than in Griffith's study. As a result, the *occupational – future oriented factor* identified by Woodruff et al. and Griffith did not clearly emerge in its own right. While this is in part explained by slight changes to two questions due to differing aspects of service between the forces, the absence of comparable educational benefits offered under the US G.I. Bill is another potentially important explanatory factor

Discussion

This study significantly adds to the literature on the recruitment and retention in the British Army Reserve, and that on I-O motivations in general. The results highlight that most soldiers joined British reserve logistics units for institutional rather than occupational reasons. This has a number of implications for the recruitment and retention of reserve logistics personnel and the FR20 recruitment campaign in particular.

What now for Army Reserve recruitment?

A number of general trends emerge in the evidence which may be useful to inform future recruitment and retention policies concerning RLC and REME reservists. Firstly, there was no significant difference in RLC and REME soldiers' motivations for joining reserve service, indicating that recruitment campaigns specifically targeting these different cap badges are not needed. Secondly, without controlling for any background characteristics, most RLC and REME soldiers join for institutional reasons. Those that do are generally associated with longer career intentions and reporting when mobilised for intrinsic reasons. They also attend training more frequently and are more satisfied with reserve service. Generally, they are less likely to leave service due to a lack of pecuniary benefits and conflicts with civilian life. This is consistent with previous research and the hypotheses. In terms of the success of FR20, this evidence suggests that institutionally-motivated soldiers could be more committed to the new demands of reserve service as outlined in the policy, and are more likely to remain in

service and deploy despite frictions, when compared to their occupationally-motivated colleagues. This is a potentially significant finding that has also been corroborated with interview data, given that current recruitment strategies are stressing the pecuniary benefits of reserve service.

In terms of recruiting certain groups, it is noteworthy that lower ranked and less educated soldiers reported higher levels of joining for each of the institutional reasons. These are key groups the AR must recruit and retain if is to expand, and this evidence points to the enduring importance of institutional motivations for reserve service, despite the increasingly better occupational benefits on offer as a result of FR20. As a result, reserve recruitment campaigns emphasising the patriotic and experiential aspects of reserve service should resonate with potential RLC/REME recruits. Supporting the previous literature and the hypotheses, the evidence also suggests that soldiers who join for pecuniary benefits are less satisfied with all elements of reserve service, more likely to deploy due to contractual obligations and more likely to leave due to a lack of pecuniary benefits. In short, these soldiers are less committed to reserve service.

Taken together, these broad trends suggests that recruitment campaigns that only stress the occupational and pecuniary benefits of reserve service may attract soldiers who will be less satisfied and committed and thus harder to retain. A similar argument was made by Griffith (2007). Indeed, a very recent qualitative study in a similar sample has also revealed concerns amongst RLC/REME reservists about both the long-term intentions and commitment of those that join for monetary benefits (including ex-Regulars), and the quality of recruit such a strategy has attracted. Given that recent AR recruitment campaigns that have focused heavily on the pay, bonus pay and material benefits of reserve service are now beginning to attract the numbers required under FR20, a more balanced approach to recruitment that also stresses the institutional and experiential benefits of reserve service is worthy of consideration. Certainly, appeals to patriotism could be accentuated.

In terms of retention, beyond the evidence that institutionally-motivated soldiers have longer career intentions and are more committed to reserve service, there is also a clear trend that better educated soldiers are harder to retain. Better educated soldiers were more likely to leave due to boring training and poor leadership, a lack of occupational development opportunities and conflicts with civilian life. Better educated soldiers were also less satisfied with the amount of training conducted with regulars. Better educated soldiers therefore represent the hardest single group of soldiers to retain, yet as 35 percent of the sample had some college education or above, efforts to improve levels of satisfaction within this group would be recommended. This is especially important as better educated soldiers conceivably will have higher levels of skill in the RLC and REME, and therefore need to be retained to deliver the increased capability required under FR20. As a result of this research, CD CSS has already identified that improving the amount of training with regulars is likely to have cross-cutting effects on satisfaction across both the RLC/REME population, and amongst better educated soldiers in particular: the findings are being used to inform future policy in this regard. Interestingly, one facet of FR20 may indirectly address this training issue as well. As the reserves are being deployed more regularly on defence engagement tasks they have greater opportunity to train with the regulars, and indeed, other armies. For some, especially better educated reservists, this may boost retention.

In terms of the requirement for heightened reserve readiness, recently there have been signs that FR20's emphasis on the routine deployment of reservists has been reviewed downward. The 2015 Strategic Defence and Security Review outlined that the army should re-focus on its ability to deploy and sustain a warfighting division for a shorter intervention, thereby indicating a shift away from the deployment of brigades on enduring operations (Government, 2015, 31). As a result of this shift, the need to routinely deploy reservists appears to have diminished somewhat, as evidenced by recent comments by the Chief of the General Staff, Nick Carter (Carter, 2015). This adjustment may also have been a result of the organisational paradox that more deployable reserve meant a less recruited one.

Nevertheless, individual reservists are still viewed as an important contributor to the army's operational readiness and resilience, and the evidence presented above indicates that those that join for institutional reasons are more committed to reserve service and more likely to deploy for intrinsic reasons. Griffith (2008) posited that these intrinsic motivations are most important for encouraging effective performance on deployment in often adverse conditions. This importance of intrinsic motivations was also supported in group interviews, where a number of reservists revealed issues with the reliance on monetary incentives in recruitment. As this reservist surmised:

> 'It's all well and good recruiting someone, but if they're: "Mmm... I don't know if I want to do it." You want someone who really wants to do it - like I really wanted to do it - then they'll do it. If they're half-hearted people, they will fall out, they won't want to do it. And there's not many people that I think that really want to do it. You have to think... I always look for the next challenge. That's what I do. That's how I am.' (Group interview, 20 January 2016)

Thus, the evidence seems to suggest caution about an over-reliance on monetary incentives to induce service in the reserves. Certainly, it remains to be seen if those new reservists and ex-regulars who have joined as a result of the new bonuses remain in service after their return of services has expired, and indeed, how often they volunteer for additional training activities and deployments vis a vis their institutionally-motivated colleagues.

Finally, the research also identified that in the sample surveyed, British reserve logistics soldiers were proportionally more motivated to join for institutional reasons (76 percent) than US National Guard soldiers (63 percent). This led to the creation of a second institutional factor in reasons for joining, which differs from the US example, and may reflect long-term differences between the 'offer' made to British and US reservists – such as the lack of comparable educational benefits – as much as it does greater intrinsic motivations in the UK. The fact that a second institutional factor emerged, coupled with the absence of a clear *occupational – future oriented* factor indicates that the I-O categories are more perhaps more fluid than previously thought, and that their prevalence can change with the sample.

Study Limitations and Future Research

There were a number of study limitations. Firstly, although the sample was a statistically representative of the AR REME/ RLC population, and the response rate was very similar to those recorded in ResCAS, it did result in a relatively high confidence interval. Secondly, the adage 'in science you get the answers to the questions you ask' is noteworthy. Griffith's and this paper have shown that the I-O model only explains about 25 percent of response variance. As a result the model does not come close to proving causality and is indicative of the wider problem of cross sectional studies of multi-dimensional and dynamic issues in the social sciences. Indeed, qualitative data gathered from conversations with AR officers have provided some more detailed explanatory factors that are not included in the model.[3] Similarly, although the evidence has been corroborated with group and individual interviews where appropriate, the predominant use of single quantitative instrument to assess these issues is another limit. Finally, the use of unstandardized B values precludes an accurate comparison of R2 variance scores.

Further longitudinal research is needed to capture new recruits and ex-regulars who have joined since the introduction of FR20's improved 'offer' to investigate whether they will remain in reserve service. Certainly this research would suggest that their retention could potentially becoming a problem once recruits have collected their joining bonuses and served their contractual requirement. More broadly, the question of whether better educational benefits, similar to those offered in the US, would increase recruitment and retention in the British AR is also worthy of investigation. Finally, this study has already directly resulted in the inclusion of I-O items on ResCAS, allowing comparisons to be drawn with all reservists in the future.

[i] In all EFAs and later analyses, missing values (average 3 percent per variable) were excluded pairwise. All factor extraction methods in this study used principal components with varimax rotation, and met both the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO), and Bartlett's Test of Sphericity requirements for factor analysis. All factor analyses used Catell's Scree Test and parallel analysis to confirm the factors, and only examined the content of factors with loading > .30. For the reasons for joining EFA, the KMO was .819, and Bartlett's Test of Sphericity was p =.000, indicating that factor analysis was appropriate.

[3] I am particularly indebted to Lt Col. Vince Connelly and Capt. Alex Neads for their interpretations of the underlying reasons for some responses/findings.

[ii] The overall chi-squared statistic (x2 (59) = 183.80, p <.000 was statistically significant. While this would usually result in a poor fit of the data to the specified model, the chi-squared statistic is influenced by larger sample sizes. Larger samples produce larger chi-squared values which are significant even when the data does fit the model. In such cases, as Griffith (2007) has noted, the ratio of chi-squared statistic to degrees of freedom is recommended. In this study, this ratio was 3.11. Ratios of 5.0 or less are considered a very good fit of data. The comparative fit index (CFI) was .94, over the .90 value requirement. The root mean standard error of approximation (RMSEA), which measures the extent to which the variance-covariance matrix derived from the data differed from that implied by the model was .060. The lower the RMSEA score, the better the 'fit' of the data. Scores of .050 are considered a good fit of data to the model, while scores up to .10 are considered an adequate fit. Finally, all standardised regression paths of items to their respective latent constructs were medium to large in size. Values ranged from .49 to .87 and the median score was .65.

[iii] The KMO was .817, and Bartlett's Test of Sphericity was p =.000. An inspection of the screeplot revealed a clear break after the first, and another after the sixth factor. The choice of six factors was further supported by the results of Parallel Analysis (19 variables x 504 respondents). As the sample size was slightly too small to be fully confident of factor analysis results due to the high number of items (30 respondents per item is recommended) a further factor analysis was conducted using the only 15 highest scoring items. These results were very similar to those of the 19 items and generated six factors, supporting the statistical validity of the constructs.

[iv] One question differed from Griffith's study – soldiers were asked whether they reported because 'they wanted to do their job on operations' rather than they 'believed in the mission', and one question was added; mobilising 'because you need the money'.

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